

# Work Order ID 51138

August 4, 2009 2:26:27 PM

Page 1

Item ID: D135-692-011

Revision ID: A1

Item Name: Bearpaw

Start Date: 8/06/09 Start Qty: 4.00

Required Date: 8/12/09 Req'd Qty: 4.00

Reference:

Approvals: Process Plan: Date: Tooling: Date: QC: Date: SPC (Y/N): Date:

Setup Start

Stop

Run Start

Stop

Cust Item ID:

Customer:

806Am

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3049	Rev A1

8

100

0.00



DC

Document Control

DOCUMENT CONTROL

Memo: *for cl 09/08/10*  
Photocopy bluefile and create labels per PPP D135-692-011 CHG002

A1

BLANK

~~18987~~

8

120

0.00



HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

0.00

Note: (2) Bearpaw for (1) Kit □1-Inspect material for defects or damage prior to machining; 12-Machine as per Folio FA165 and Dwg D3049Identify as D3049-1113-Deburr

8

Y.A 09/08/06

130

0.00



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

8

Y.A 09/08/06

# Work Order ID 51138

August 4, 2009 2:26:27 PM



Page 2

Item ID: D135-692-011

Accept



Setup Start



Revision ID: A1

Item Name: Bearpaw

Stop



Start Date: 8/06/09 Start Qty: 4.00



Cust Item ID:

Required Date: 8/12/09 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140  QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00	amf 09/08/07			8	0		
150  Packaging Packaging	Pick Kit  Memo	0.00  0.00				9/8/07	40 SP		
160  QC Quality Control	QC4- 100% Inspect kits for completeness  Memo	0.00  0.00	=> 8 or less			48	0		

# Picklist Print

August 4, 2009 2:26:26 PM

Page 1

Work Order ID: 51138

Parent Item: D135-692-011RevA1

Parent Item Name: Bearpaw

Comments:

Start Date: 8/06/09

Required Date: 8/12/09

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

QS100-M24S		Purchased	No			120	Each	15.0000	16.0000			
------------	--	-----------	----	--	--	-----	------	---------	---------	--	--	--



Clamp

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

15

110180

10

111383

5

★  
M112467  
9/8/19  
(2)

4x gal

110180  
11385

(4x)

5d

AN4-15A



Bolt

Purchased

No

160

Each

1,046.000

32.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1046

107737

8

108077

1

108868

7

109148

18

110399

12

111295

1000

110399  
111295

4x  
20

9/8/17

(4x)  
5d

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector.

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

August 4, 2009 2:26:26 PM

Page 2

Work Order ID: 51138

Parent Item: D135-692-011RevA1

Parent Item Name: Bearpaw

Comments:

Start Date: 8/06/09

Required Date: 8/12/09

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD416	28	Purchased	No			160	Each	11,708.00	32.0000			



Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	11708
102929	2
105906	4
107321	23
107939	114
108161	553
108827	31
109249	69
110523	340
111279	572
111916	5000
112314	5000
16941	0

111279

54

D2182BRevC 24 @ 6" Long Manufactured No



Rubber Cushion

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	347.22
28042	7.33
30872	8.33
45405	331.56

30872

9/8/11 SP

August 4, 2009 2:26:26 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

August 4, 2009 2:26:26 PM

Work Order ID: 51138

Parent Item: D135-692-011RevA1

Parent Item Name: Bearpaw

Comments:

Start Date: 8/06/09

Required Date: 8/12/09

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2274RevF		Manufactured	No			160	Each	672.0000	32.0000			



Radius Block

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

672

22494

0

23174

0

36624

17

38173

6

42099

34

43838

62

47796

383

50227

170

8x  
Call

47796

54

D2519RevD



Clamp

Manufactured No

160

Each

117.0000



32.00

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

117

42407

33

43842

84

4x  
each

42407

54

9/8/7

X (162) 43842  
SM

(4x)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Page 4

August 4, 2009 2:26:27 PM

Work Order ID: 51138

Parent Item: D135-692-011RevA1

Parent Item Name: Bearpaw

Comments:

Start Date: 8/06/09

Required Date: 8/12/09

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2529RevE	KS	Manufactured	No			160	Each	441.0000	32.0000			



Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

441

45388

441

45388

scf

MS21042L4

KS

Purchased

No

160

Each

10,192.00

32.0000



Nut

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

10192

107499

5

110507

2146

111827

6000

112314

2000

15924

0

8182

41

8x each

110507

scf  
9/8/09  
(42)

August 4, 2009 2:26:27 PM

Shop Packet Print

Page 4

# Picklist Print

August 4, 2009 2:26:27 PM

Work Order ID: 51138

Parent Item: D135-692-011RevA1

Parent Item Name: Bearpaw

Comments:

Start Date: 8/06/09

Required Date: 8/12/09

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			160	sf	441.1100	22.5684			



UHMW 1" Black



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
MAT	320	
110186	320	
Main Warehouse		
ST	121.11	
108762	18	
109186	5	
110520	8	
110721	24	
111354	66.11	

112186

112186

IB 9-8-5

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description: Bearpaw</b>		<b>Part Number:</b>	<b>D3049-1</b>
<b>Inspection Dwg: D3049</b>	<b>Rev: A1</b>	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**
☐ **Prototype**

Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	Ø0.260	+0.005/-0.000	Ø0.260	✓			
B	0.93	+/-0.030	Ø0.932	✓			
C	0.40	+0.030/-0.000	0.405	✓			
D	2.00	+/-0.030	2.000	✓			
E	10.250	+/-0.010	10.250	✓			
F	4.540	+/-0.030	4.545	✓			
G	5.88	+/-0.030	5.870	✓			
H	0.38	+/-0.030	0.381	✓			
I	11.50	+/-0.030	11.50	✓			
J	0.07 x 45°	+0.030/-0.010	0.060x45°	✓			
K	0.44 - 0.47	+/-0.000	0.446	✓			
L	R0.25	+/-0.030	R0.250	✓			
M	0.38	+/-0.010	0.375	✓			
N	0.95	+0.030/-0.010	0.961	✓			
O	0.69	+/-0.030	0.680	✓			
P	0.20	+/-0.030	0.212	✓			
Q	23.00	+/-0.030	23.000	✓			
R	0.25 x 45°	+/-0.030	0.250 x 45°	✓			

<b>Measured by:</b> <i>HA</i>	<b>Audited by:</b> <i>ml</i>	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 09/08/06	<b>Date:</b> 09/08/07	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	03.09.22	New Issue P/O D135-692-011	KJ/RF	
B	08.05.06	Dimension I revised	KJ/DD	

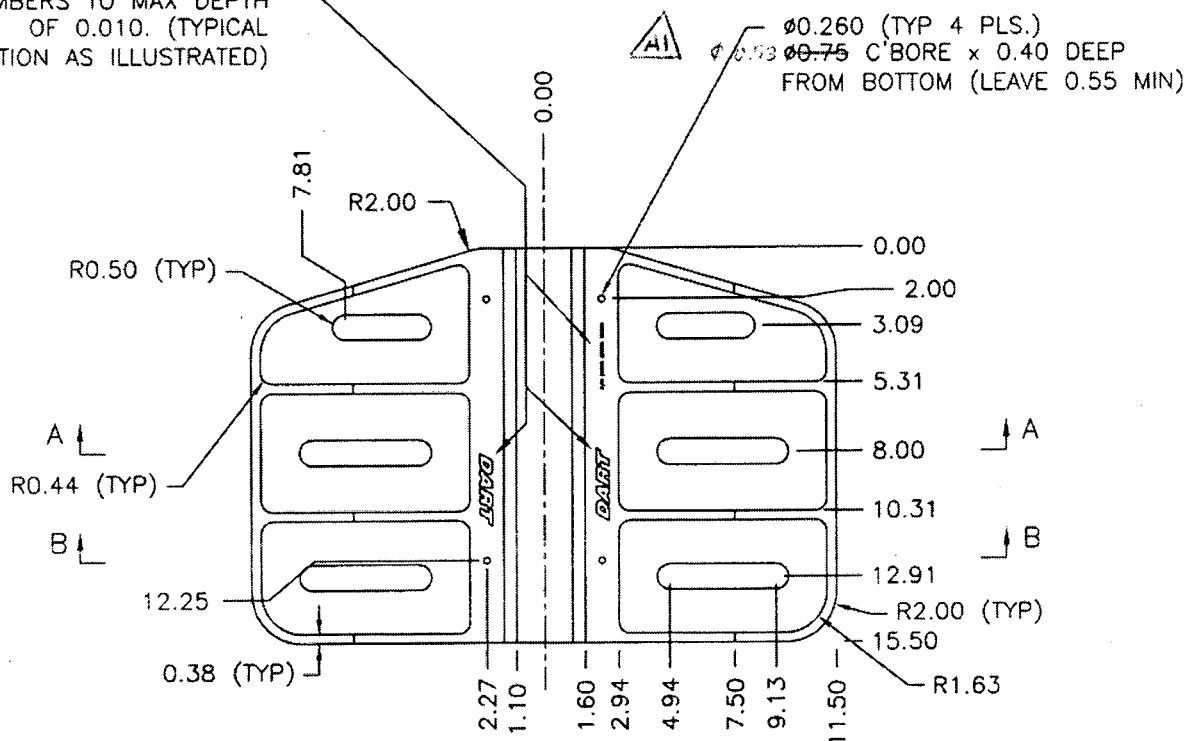


DESIGN RF		DRAWN BY RF		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]		APPROVED [Signature]		DRAWING NO. D3049	
DATE 01.10.18		TITLE BEARPAW		REV. A SHEET 1 OF 2 SCALE 1:1	
A	01.10.18		NEW ISSUE		
AI	[Signature] 03.01.13		0.93 495 0.75		

RELEASED  
01.10.24

W/0 3038

ENGRAVE DART LOGO TO  
MAX DEPTH OF 0.012.  
ENGRAVE PART AND BATCH  
NUMBERS TO MAX DEPTH  
OF 0.010. (TYPICAL  
LOCATION AS ILLUSTRATED)



D3049-1 BEARPAW

NOTES:

- 1) BEARPAW IS SYMMETRIC ABOUT CENTER LINE
- 2) MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689, 1.00" THICK (MACHINE TO 0.950)

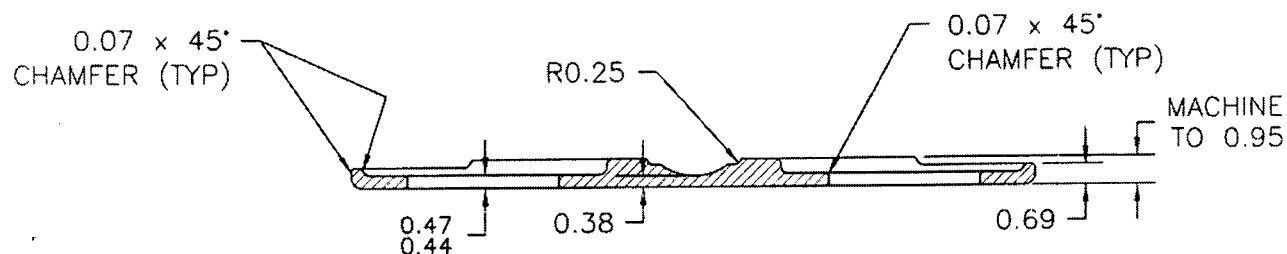
Copyright © 2001 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

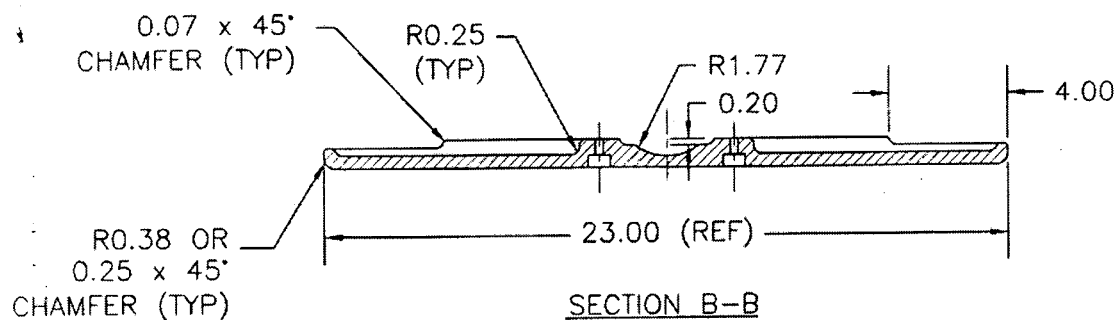


DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D3049	REV. A SHEET 2 OF 2
DATE 01.10.18		TITLE BEARPAW	SCALE 1:6

RELEASED  
01.10.21



SECTION A-A



SECTION B-B

51138

Copyright © 2001 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**32.3 WEIGHT AND BALANCE**

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D135-692-011 Bearpaw Installation on model EC135 aircraft	11.8 lb 5.36 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	199.7 in 5.07 m	2356 in-lb 27.2 m-kg

**32.4 PARTS LIST**

Qty	Part Number	Description
X	D135-692-011	BEARPAW INSTALLATION
4	D2182B060	RUBBER CUSHION
8	D2274	RADIUS BLOCK
2	D3049-1	BEARPAW
8	D2529	WASHER
8	D2519	CLAMP
8	AN4-15A	BOLT
8	AN960JD416	WASHERS
8	MS21042L4	NUT (OR MS21042-4)
4	QS100M24S	CLAMP

5/1/02